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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,412	08/14/2001	Norman Ken Ouchi		9132

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EXAMINER

JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,412

Applicant(s)

OUCHI, NORMAN KEN

Examiner

Scott L. Jarrett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Title

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Graphical User Interface For Selecting Sub-Routes in a Workflow Management System.

Abstract

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is too short and does not adequately describe the disclosed invention. Further the abstract recites "The present invention relates to". Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 9 and 10 are objected to because of the following informalities: claims 9 and 10 are duplicates. Examiner suggests applicant cancel or amend one or both of the duplicated claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1-6, Claim 1 recites a screen (software per se) and a system. Examiner requests clarification as to what the applicant regards as the invention (i.e. screen or system). Examiner interpreted the claim to read as software comprising a screen for the purposes of examination.

Regarding Claims 7-11, Claim 7 recites a composite route linkage and a system. Examiner requests clarification as to what the applicant regards as the invention (i.e. the system or the composite route linkage). Examiner interpreted the claim to read as software wherein links are created between nodes (process steps) for the purposes of examination.

Regarding Claims 12-15, Claim 12 recites a screen (software per se) and a system. Examiner requests clarification as to what the applicant regards as the invention (i.e. screen or system). Examiner interpreted the claim to read as software comprising a screen for the purposes of examination.

Further regarding Claims 1, 7 and 12 the disclosure does not clearly define the phrase "system." A system as claimed could contain a plurality of elements and without further definition of the system elements the phrase as claimed is therefore vague and indefinite. Examiner suggests applicant positively recite the elements comprising the system to overcome this rejection.

Further regarding Claim 7 the disclosure does not clearly define the phrase "composite route linkage" therefore the phrase as claimed is vague and indefinite. Examiner interpreted the phrase "composite route linkage" to mean a link (interdependency, dependency relationship) between one or more nodes (steps) for the purposes of examination.

Claim Rejections - 35 USC § 101

6. Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result.

Software, programming, instructions or code not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in a computer. When such descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases.

Furthermore, software, programming, instructions or code not claimed as being computer executable are not statutory because they are not capable of causing functional change in a computer. In contrast, when a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer and the program, and the computer is capable of executing the program, allowing the program's functionality to be realized, the program will be statutory.

Regarding Claims 1-15 merely recite descriptive material (software) per se. Claims 1-15 are therefore deemed to be directed to non-statutory subject matter where there is no indication that the proposed software is recorded on computer-readable medium and/or capable of execution by a computer. Examiner suggests that the applicant incorporate into Claims 1-15 language that the proposed software is recorded on computer-readable medium and capable of execution by a computer to overcome this rejection.

Correction required. See MPEP § 2106 [R-2].

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Berg et al., U.S. Patent No. 5,999,911.

Regarding Claim 1 Berg et al. teach a workflow system and method wherein the system provides a graphical user interface (i.e. a plurality of screens) to model, manage and execute business processes represented as composite (nested, multi-layered, hierarchical, etc.) workflows (Abstract; Column 2, Lines 28-63; Column 4, Lines 4-28; Figure 3, Element 80; Figures 4, 7).

More specifically Berg et al. teach a workflow system and method comprising:

- a route (workflow, process, etc.; Abstract; Figure 3);
- a sub-route (subflow, subprocess, process, etc.) selection screen (display, user interface, graphical user interface, etc.) wherein sub-routes define process/sub process (workflow) utilizing a plurality of interconnected (links, arcs, relation links, interdependencies, dependency links, etc.) nodes (steps, processes; Column 11, Lines 9-57; Figures 3-7); and
- enabling users to select one or more sub-routes to be appended (added, merged, etc.) with a route ("drag and drop environment for modeling a process in terms

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of workflow", Column 9, Lines 1-2; "the designer can select one of the step icons, which include a task step 104, an activity step 106, a decision step 108, and a subflow step 110.", Column 9, Lines 8-12).

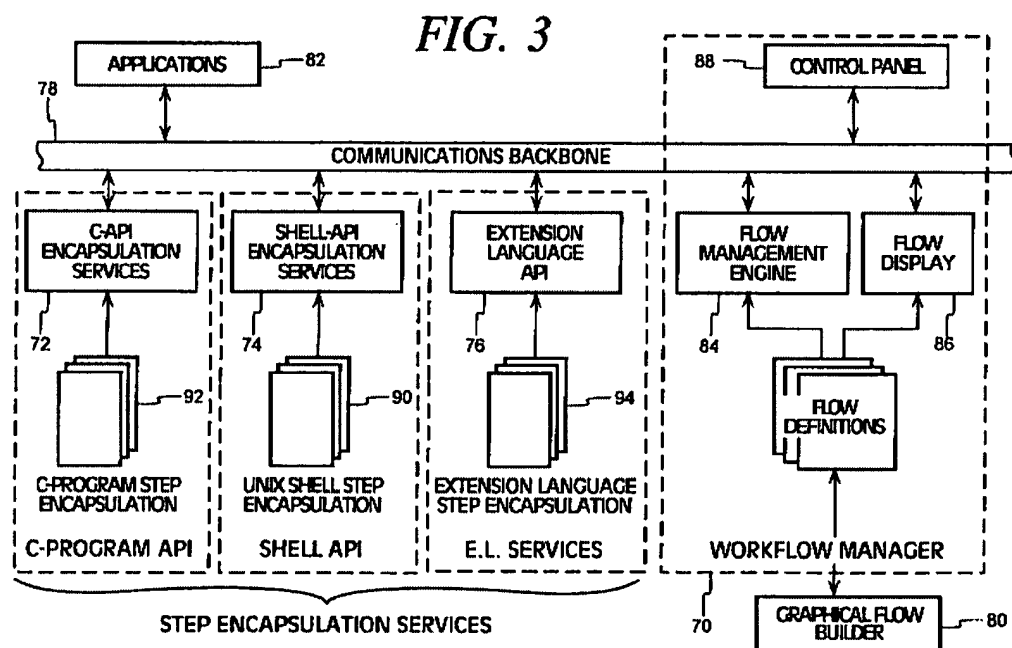


FIG. 4

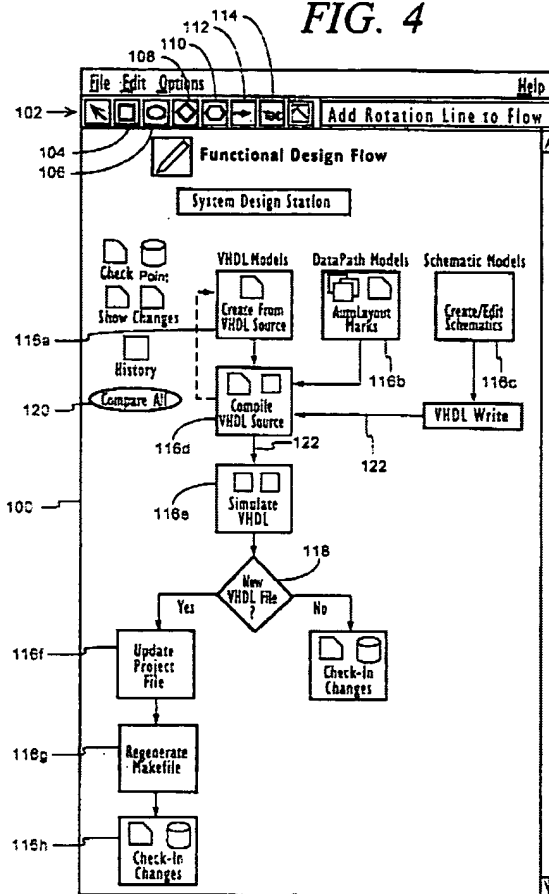
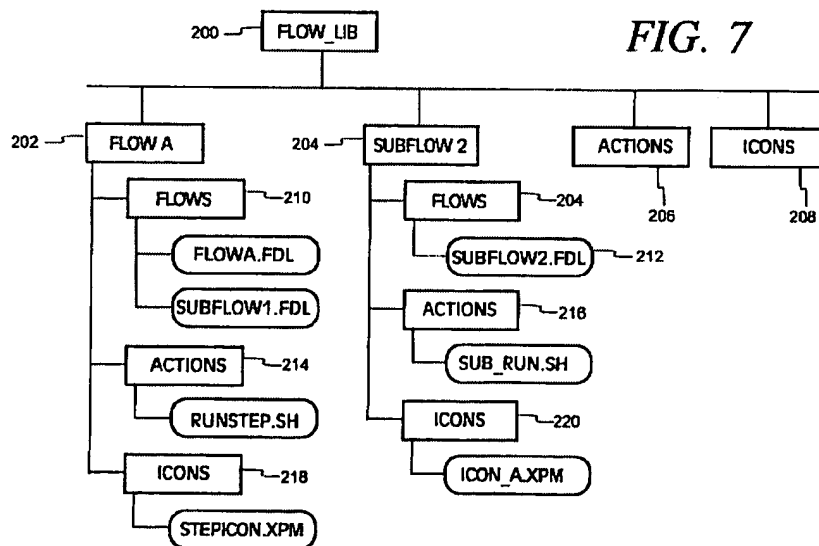


FIG. 7



Regarding Claim 2 Berg et al. teach a workflow system and method wherein the system enables users to select sub-routes (subflows, sub processes, processes, flow definitions, templates, etc.) from a library (repository; "The default flow library allows the designer to group all of the components of a flow, including flow definitions, subflow definitions, actions, and icons under the flow library directory.", Column 10, Lines 14-47; Column 15, Lines 4-23; Figures 7-8).

Regarding Claims 3 and 6 Berg et al. teach a workflow system and method wherein users can create, edit and save (i.e. add) sub-routes (processes, subflows, sub processes, etc.) to a library (Column 10, Lines 1-41; Column 15, Lines 4-23; Figure 7).

Regarding Claim 5 Berg et al. teach a workflow system and method wherein workflows (processes, sub-routes, etc.) include conditional branches wherein conditional branches enable one or more steps (processes, subflows, etc.) to be activated (taken) based on the conditions (logic, rules, etc.) of the conditional branch (decision step; Column 10, Lines 57-68; Column 18, Lines 1-41; Figure 11).

Regarding Claim 7 Berg et al. teach a workflow system and method wherein the system provides a graphical user interface (i.e. a plurality of screens) to model, manage and execute business processes modeled as composite (nested, multi-layered, hierarchical, process/sub process, etc.) workflows/routes (Abstract; Column 2, Lines 28-63; Column 4, Lines 4-28; Figure 3, Element 80; Figures 4, 7).

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More specifically Berg et al. teach a workflow system and method comprising:

- a route (workflow, process, etc.; Column 4, Lines 4-28; Figure 3); and
- a workflow (template, workflow template, workflow definition) editing screen

(graphical flow builder; Figure 3, Element 80; Figure 4) wherein processes are created by linking a plurality of nodes (steps, processes) via dependency relationships (i.e. composite linkages; Column 4, Lines 4-28; Column 11, Lines 9-57; Figures 3-7).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg et al., U.S. Patent No. 5,999,911 as applied to claims 1-7 above.

Regarding Claim 8 Berg et al. workflow system and method wherein dependency links can be created (added) between a plurality of nodes (process steps, subflows, sub processes, etc.) including dependency relationships/links which “return” the workflow/process back to a subsequent/previous node (step, process, etc.; Figure 4 – the return link from 116d back to 116a).

Berg et al. further teach that the workflow system enables user to define step encapsulations (composite steps/nodes, nested processes/activities) to include steps/activities outlining the re-execution of a node (step; Column 12, Lines 14-20).

Berg et al. does not expressly teach that the return link is between a first and second sub-route (sub-process flow) as claimed.

Official notice is taken that linking processes and/or sub processes (sub flows, sub-routes, etc.) utilizing forward (next) and back (return) links (relationships,

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dependencies) is old and well know. For example return links enable processes/sub processes to “roll-back” (compensation, recover, try again) a particular process/route to their original state and/or return “control” to the process/sub-route/process that initiated the failed process in order to retry or re-route the failed process/sub-process.

It would have been obvious to one skilled in the art at the time of the invention that the workflow system and method as taught by Berg et al., with its ability to link a plurality of nodes/process/sub-routes, would have benefited from including “return links” between one or more sub-routes/processes in view of the teachings of official notice; the resultant system providing a mechanism for the workflow system to “roll-back” failed sub-routes/sub-processes.

Regarding Claim 11 Berg et al. teach a workflow system and method wherein users can create, edit and save (i.e. add) sub-routes (processes, subflows, sub processes, etc.) to the library (Column 10, Lines 1-41; Column 15, Lines 4-23; Figure 7).

11. Claims 9-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg et al., U.S. Patent No. 5,999,911 as applied to claims 1-8 above, and further in view of Agrawal et al., U.S. Patent No. 6,278,977.

Regarding Claims 9-10 Berg et al. does not expressly teach that sub-routes (subflows) can be executed in parallel as claimed.

Agrawal et al. teach defining parallel processes/sub processes (activities, work nodes, etc.) in order to model business processes utilizing a plurality of workflows (subflows, sub process; Column 4, Lines 4-12; Column 5, Lines 9-20; Column 13, Lines 25-29).

It would have been obvious to one skilled in the art at the time of the invention that the workflow system and method as taught by Berg et al. would have benefited from defining/utilizing parallel work flows in view of the teachings of Agrawal et al.; the resultant system improving the efficiency of the overall process by executing process/activities in parallel when possible (Agrawal et al.: Column 4, Lines 5-17).

Regarding Claims 12 and 15 Berg et al. does not expressly teach assigning users/user roles to nodes as claimed.

Agrawal et al. teach assigning users (staff, personnel, persons, resources, etc.) and/or user roles to workflow nodes (steps, processes, activities, etc.) in an analogous art of workflow systems, for the purposes of assigning the work to the "appropriate people" (Column 7, Line 2; Column 9, Lines 1-20).

It would have been obvious to one skilled in the art at the time of the invention that the workflow system and method as taught by Berg et al. would have benefited from assigning users/user roles to the plurality of work nodes (activities, processes, subflows, etc.) in view of the teachings of Agrawal et al.; the resultant system insuring the right resources are assigned to each of the workflow nodes (Agrawal et al.: Column 9, Lines 1-20).

Regarding Claims 13-14 Berg et al. does not expressly teach assigning/selecting users from a pre-defined list or storing the users/user roles in a library as claimed.

Agrawal et al. teach a workflow system and method wherein the user (users, resources, staff, etc.) to be assigned to nodes (workflows) are selected from a pre-defined list of candidates saved (stored) in a library (database, repository, file, etc.; i.e. selected from the staff/users defined in the database/system; "FlowMark staff definition entails more than identifying people in your enterprise to the FlowMark database. For each person, you can specify a level, an organization and multiple roles.", Column 9, Lines 10-21; Column 10, Lines 9-15).

It would have been obvious to one skilled in the art at the time of the invention that the workflow system and method as taught by Berg et al. would have benefited from selecting pre-defined users/user roles from the system (database, repository) and assigning users/user roles to the plurality of work nodes (activities, processes, subflows, etc.) in view of the teachings of Agrawal et al.; the resultant system insuring the right resources are assigned to each of the workflow nodes (Agrawal et al.: Column 9, Lines 1-20).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lehmann et al., U.S. Patent No. 5,737,727, teach a workflow method and system comprising a graphical user interface (i.e. a plurality of screens) wherein the screens are used to design/define multi-level (nested, composite, etc.) workflows that are constructed by linking a plurality of nodes representing work elements, agents/actors, work products and the like. Lehmann et al. further teaches that workflows/processes are stored in a repository (library).

- Flores et al., U.S. Patent No. 5,734,837, teach a workflow system and method comprising a graphical user interface for designing (mapping) and executing business processes, defined in workflow templates, wherein business processes are represented a paths (routes) created by a plurality of dependencies/links, including but not limited to conditional/branching links, between a plurality of nodes (processes, subflows, sub processes, etc.). Flores et al. further teach that users (identities) and roles (organization roles) are assigned/defined for the workflow processes.

- Du et al., U.S. Patent No. 5,826,239, teach a workflow system and method wherein the system utilizes the well known HP OpenPM system.

- Davis et al., U.S. Patent No. 5,870,545, teach a workflow system and method wherein business processes are modeled utilizing composite workflows that are represented as directed graphs consisting of nodes (work/rule nodes) and links (forward/reset arcs). More specifically Davis et al. teach that reset arcs are used to

support repetitions (i.e. return to previous node/process), compensating for node failures (i.e. "roll-back") and/or exploring alternatives in a workflow. Davis et al. further teach that the workflows are flexible/dynamic giving them the ability to adapt to run-time conditions/requirements.

- Du et al., U.S. Patent No. 6,041,306, teach a distributed workflow system and method wherein the system models/executes business processes modeled as directed graphs consisting of nodes, the nodes being further defined as state machines, and arcs.

- Flores et al., U.S. Patent No. 6,073,109, teach a workflow system and method comprising a plurality of screens (graphical user interface) through which users define workflows (business processes, links, etc.) and user roles (workflow/organization roles).

- Bacon et al., U.S. Patent No. 6,430,538, teach a workflow system and method comprising a plurality of screens (graphical user interface) wherein users define composite workflows comprising a plurality of subflows (sub-routes) utilizing a plurality of well know and industry standard (WFMC) interrelationships including but not limited to: OR-split, OR-join, AND-split and AND-join. Bacon et al. further teach that users/resources, located in a list/library of resources/services (LDAP), are assigned (bound) dynamically (adaptively) to the workflow.

- Ouchi, Norman Ken, U.S. Patent No. 6,539,404, teaches a workflow system and method wherein composite routes are constructed to enact business processes and further that users/user roles are assigned to nodes (activities, sub-processes, sub-routes, etc.).

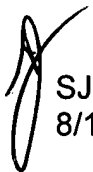
- Smirnov et al., U.S. Patent No. 6,546,364, teach an adaptive workflow system and method wherein business processes are modeled and executed utilizing nodes and links.

- Georgakopoulos et al., U.S. Patent Publication No., teach a workflow system and method comprising a plurality of screens (user interface) wherein the system enables dynamic role assignment and "late binding" of work activities to workflows. Georgakopoulos et al. further teach that the workflow system models composite workflows/processes wherein two or more mutually exclusive routes as well as optional routes (flows) can be defined.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 SJ
8/19/2005


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